

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 2, 2019/2020

### **BAC3684 – SECURITY INVESTMENTS AND PORTFOLIO MANAGEMENT**

( All sections / Groups )

07 MARCH 2020  
2.30 pm – 5.30 pm  
(3 Hours )

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#### INSTRUCTIONS TO STUDENTS

1. This question paper consists of 4 (**FOUR**) pages excluding cover page.
2. Answer **ALL FOUR** questions in the answer booklet provided.
3. Marks allocations are shown at the end of each question.

**Question 1 (25 marks)**

- (a) The Kuala Lumpur Composite Index (KLCI) showed the following returns (Rs) for a 6 year period: 11.1 percent, -5.2 percent, 20.3 percent, 26.7 percent, -12.4 percent, and 2.2 percent.

(i) Calculate the arithmetic mean return for the 6-year period.

(5 marks)

(ii) Calculate the geometric mean return for the 6-year period.

(5 marks)

- (b) Calculate the risk (standard deviation) of the following two-security portfolio if the correlation coefficient between the two securities is equal to 0.5.

	<u>Variance</u>	<u>Weight (in the portfolio)</u>
Security A	10	0.3
Security B	20	0.7

(8 marks)

- (c) Distinguish between systematic and unsystematic risk. What are two other names for each? Give examples of each.

(7 marks)

**Question 2 (25 marks)**

- (a) Upin Berhad has a stock price of RM40 and just reported earnings of RM3 per share. The firm maintains a constant dividend payout of 65% and has an expected return on equity (ROE) of 16%. Based on the constant growth model, calculate Upin Berhad's expected rate of return.

(9 marks)

- (b) Why is the stock market a leading indicator of the economy? Use the constant-growth dividend discount model in your explanation.

(5 marks)

- (c) Use the constant-growth dividend discount model to explain why stock prices have an inverse relationship to interest rates.

(5 marks)

- (d) Explain three specific buy signals using a moving average in technical analysis.

(6 marks)

Continued...

**Question 3 (25 marks)**

- (a) Industry analysis is the second of three steps in a top-down framework of fundamental security analysis. Discuss at what stage in the industrial life cycle you would like to discover an industry if you are a rational investor. Justify your decision.

**(10 marks)**

- (b) The following are the income statement and balance sheet for Nestle (Malaysia) Berhad for the financial year end 2019 and 2020.

**Income Statement for the Years Ended 31 December 2019 and 2020**

	<b>2019</b> <b>(RM'000)</b>	<b>2020</b> <b>(RM'000)</b>
Revenues	2,600	3,500
Cost of Sales	(1,560)	(2,350)
Gross Profit	<b>1,040</b>	<b>1,150</b>
Wages and Salaries	(320)	(350)
Overheads	(260)	(200)
Depreciation	(150)	(250)
Operating Profit	<b>310</b>	<b>350</b>
Interest Payable	(50)	(50)
Profit before Taxation	<b>260</b>	<b>300</b>
Tax	(105)	(125)
Profit for the Year	<b>155</b>	<b>175</b>

**Continued...**

**Questions 3 (cont...)****Statement of Financial Position as at 31 December 2019 & 2020**

	2019 (RM'000)	2020 (RM'000)
<b>Non-Current Assets</b>		
Property, Plant and Equipment	1,265	1,525
<b>Current Assets</b>		
Inventories	250	400
Trade Receivable	105	145
Cash at Bank	380	115
	735	660
<b>Total Assets</b>	<b>2,000</b>	<b>2,185</b>
<b>Equity</b>		
Share Capital: RM1 shares fully paid	490	490
Share Premium	260	260
Retained Earnings	350	450
	1,100	1,200
<b>Non-Current Liability</b>		
Borrowings - 10% loan notes	500	500
<b>Current Liabilities</b>		
Trade Payables	300	375
Other Payables	100	110
	400	485
<b>Total Equity and Liabilities</b>	<b>2,000</b>	<b>2,185</b>

Dividends were paid on ordinary shares of RM65,000 and RM75,000 in respect of 2019 and 2020 respectively. Based on the given financial statements, you are required to complete the following questions:

- Calculate its return on assets, return on equity and earnings per share for financial year 2020.  
(8 marks)
- If the Treasury bill rate is 3 percent, beta for Nestle is 1.0, the return on market is 12 percent and 5 percent is for the dividend growth rate, compute the price earnings ratio and fair value of Nestle's share.  
(7 marks)

Continued...

**Question 4 (25 marks)**

- (a) Vista Aluminium Berhad has just issued a RM1,000 par value zero-coupon bond with an 8 percent yield to maturity, due to mature 15 years from today, assuming semiannual compounding.
- i. Calculate the market price of the bond.  
(3 marks)
  - ii. If interest rates remain constant, compute the price of the bond in three years.  
(3 marks)
  - iii. If interest rates rise to 10 percent, what will be the price of the bond in three years?  
(3 marks)
- (b) Serene has RM1,000 and bought BIMB Holdings Berhad's share at RM50 in February. One month later, she bought a put option at RM6 with a strike price of RM60. Calculate her profit when the share price is as follows:
- i. RM20  
(5 marks)
  - ii. RM80  
(5 marks)
- (c) Explain why you agree or disagree with the following statement: "Futures and forward contracts expose the parties to the same degree of counterparty risk."  
(6 marks)

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